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EXAMINER	
YUEN, KAN	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/764,816	WU ET AL.	
	Examiner	Art Unit	
	KAN YUEN	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 June 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments, see remark, filed on 6/17/2008, with respect to the rejection(s) of claim(s) 1, 9, 14, 19, 23 under 103 rejections have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ishiai (Pub No.: 2002/0021708.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 19, 20, 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Rosen (Pat No.: 6985444).

For claim 1, Rosen disclosed the method of determining a number of code violations of the digital subscriber line (Rosen see column 12, lines 15-35, and see fig. 2). As shown in the reference, the system is evaluating what data rate a DSL line will support. The data rate is measured based on the estimated characteristic of the line, and these characteristics are insertion loss of the line, phase imbalance of the line, the

length of the line, and the line gauge. The line characteristics can be interpreted as the code violations;

determining a first estimated data packet throughput value of the digital subscriber line using a first profile based on the number of code violations;

determining a second estimated data packet throughput value of the digital subscriber line using a second profile based on the number of code violations (Rosen see column 12, lines 38-67, and see fig. 3, unit 135, 145, and 155). As shown in the figure, each line is evaluated based on their transmission data rate. Each line is classified using different service categories represented by difference colored codes. The data rate is the throughput. Different categories represents first and second profiles; and

selecting, from the first profile and the second profile, a profile that has the highest estimated data packet throughput value at a particular measured code violation of the digital subscriber line to be applied to the digital subscriber line based on a comparison of the first estimated data packet throughput value and the second estimated data packet throughput value (Rosen see column 13, lines 20-67, and see fig. 3, unit 90). The process 2 shown in fig. 3, step 90 selects next service provider defined service category. Each service category is defined with a color-code, wherein color gray represents line measurements falls outside of system, and color green represents line supports the service package, and therefore green has the highest estimated data rate. The data rate of each line is measured based on the characteristics (number of code

violations e.g. insertion loss, phase imbalance, length, and line gauge) or at a particular measured code violation.

Regarding claim 2, Rosen disclosed the feature of applying the selected profile to the digital subscriber line (Rosen see column 7, lines 16-35). As the result, a profile is selected to the DSL.

Regarding claim 3, Rosen disclosed the feature wherein the selected profile is the first profile and wherein the first estimated data packet throughput value is greater than the second estimated data packet throughput (Rosen see column 12, lines 38-67, and see fig. 3, unit 135, 145, and 155). As shown in the figure, each line is evaluated based on their transmission data rate. Each line is classified into different categories represented by difference colored codes. The data rate is the throughput. For example, the colored code green is the first selected profile, wherein the second selected profile is the colored code gray. Green has higher data rate than Gray.

Regarding claim 4, Rosen disclosed the feature of determining a third estimated data packet throughput value associated with a third profile based on the number of code violations (Rosen see column 12, lines 38-67, and see fig. 3, unit 135, 145, and 155). The yellow colored code is the third profile.

Regarding claim 5, Rosen disclosed the feature of determining a plurality of estimated data packet throughput values associated with a plurality of profiles based on the number of code violations and wherein a first set of the plurality of profiles correspond to a first data line transmission speed and a second set of the plurality of profiles correspond to a second data line transmission speed (Rosen see column 12,

lines 38-67, and see fig. 3, unit 135, 145, and 155). As shown in the figure, each line is evaluated based on their transmission data rate. Each line is classified into different categories represented by difference colored codes. The data rate is the throughput. Each colored code profile has different data transmission speed. Thus, if the line test results from the test system indicate the line will support high-speed access, and if that is the case, then step 45 is executed. In step 45 color-codes this result green.

Regarding claim 6, Rosen disclosed the feature wherein a third set of profiles correspond to a third data line transmission speed (Rosen see column 12, lines 38-67, and see fig. 3, unit 135, 145, and 155). The yellow colored code is the third profile.

Regarding claim 19, Rosen disclosed the method of periodically using an automated system to retrieve measurements of code violations for each digital subscriber line in a group of digital subscriber lines (Rosen see column 5, lines 48-55). In the reference, the automatic measurement system is installing to measure the line status;

determining estimated data packet throughput values associated with each of a plurality of different available profiles wherein the estimated data packet throughput values are based on the measurements of code violations for each of the digital subscriber lines in the group of digital subscriber lines (Rosen see column 12, lines 38-67, and see fig. 3, unit 135, 145, and 155). As shown in the figure, each line is evaluated based on their transmission data rate. Each line is classified into different categories represented by difference colored codes. The data rate is the throughput; and

selecting a profile for each digital subscriber line in the group of digital subscriber lines wherein each profile is selected based on the estimated data packet throughput values that are the highest estimated data packet throughput values at the particular measured code violations of each digital subscriber line (Rosen see column 13, lines 20-67, and see fig. 3, unit 90). The process 2 shown in fig. 3, step 90 selects next service provider defined service category. Each service category is defined with a color-code, wherein color gray represents line measurements falls outside of system, and color green represents line supports the service package, and therefore green has the highest estimated data rate. The data rate of each line is measured based on the characteristics (number of code violations e.g. insertion loss, phase imbalance, length, and line gauge) or at a particular measured code violation.

Regarding claim 20, Rosen disclosed the feature wherein each profile is selected that has the highest estimated data packet throughput value (Rosen see column 12, lines 38-67, and see fig. 3, unit 135, 145, and 155). As shown in the figure, each line is evaluated based on their transmission data rate. Each line is classified into different categories represented by difference colored codes. In this case the colored green code has the highest rate.

Regarding claim 22, Rosen disclosed the feature of applying the selected profile to the digital subscriber line (Rosen see column 7, lines 16-35). As the result, a profile is selected to the DSL.

Claim Rejections - 35 USC § 103

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 9, 10, 14, 15, 23, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen (Pat No.: 6985444), in view of Ishiai (Pub No.: 2002/0021708).

For claim 9, Rosen did not disclose the feature of generating a graphical display that illustrates the first estimated data packet throughput value, the second estimated data packet throughput value, and the number of code violations. Ishiai from the same or similar field of endeavor teaches the feature of generating a graphical display that illustrates the first estimated data packet throughput value, the second estimated data packet throughput value, and the number of code violations (Ishiai fig. 7, paragraphs

0073-0075). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the feature as taught by Ishiai in the network of Rosen. The motivation for using the feature as taught by Ishiai in the network of Rosen being that it provides user friendliness.

Regarding claim 10, Ishiai disclosed the feature wherein the graphical display illustrates a first set of data packet throughput points for the first profile and a second set of data packet throughput points for the second profile (Ishiai fig. 7, paragraphs 0073-0075).

Regarding claim 14, Ishiai disclosed the feature wherein the first set of data packet throughput points form a first display curve, the second set of data packet throughput points form a second display curve, and wherein the display curves are displayed in a manner to allow selection of a profile having the highest data packet throughput for a selected number of code violations (Ishiai fig. 7, paragraphs 0073-0075).

Regarding claim 15, Rosen disclosed the method of wherein the number of code violations is correlated with a level of noise present on the digital subscriber line (Rosen see column 12, lines 15-35, and see fig. 2). As shown in the reference, the system is evaluating what data rate a DSL line will support. The data rate is measured based on the estimated characteristic of the line, and these characteristics are insertion loss of the line, phase imbalance of the line, the length of the line, and the line gauge. The line characteristics can be interpreted as the noise.

Regarding claim 23, Rosen disclosed the method of a controller including memory and a processor (Rosen see column 9, lines 38-55, and see fig. 1). As shown in figure 1, the test unit 2 comprises a memory for storage, and unit 5 is considered as the processor;

a code violation measurement unit responsive to digital subscriber lines, the code violation measurement unit to provide code violation data associated with each of the digital subscriber lines (Rosen see column 12, lines 15-35, and see fig. 2). As shown in the reference, the system is evaluating what data rate a DSL line will support. The data rate is measured based on the estimated characteristic of the line, and these characteristics are insertion loss of the line, phase imbalance of the line, the length of the line, and the line gauge. The line characteristics can be interpreted as the code violations; and

a profile database to store a plurality of profiles including a first profile and a second profile (Rosen see column 9, lines 38-55, and see fig. 1);

wherein the controller selects a profile from the profile database that has the highest data packet throughput value at a particular measured code violation for at least one of the digital subscriber lines (Rosen see column 13, lines 20-67, and see fig. 3, unit 90). The process 2 shown in fig. 3, step 90 selects next service provider defined service category. Each service category is defined with a color-code, wherein color gray represents line measurements falls outside of system, and color green represents line supports the service package, and therefore green has the highest estimated data rate. The data rate of each line is measured based on the characteristics (number of code

violations e.g. insertion loss, phase imbalance, length, and line gauge) or at a particular measured code violation.

However, Ishiai did not disclose the a terminal device responsive to the controller, the terminal device configured to display a graphical report the graphical report including a first profile curve illustrating data packet throughput values with respect to code violation data for the first profile and a second profile curve illustrating data packet throughput values with respect to code violation data for the second profile.

Ishiai from the same or similar fields of endeavor teaches the a terminal device (fig. 7, GUI) responsive to the controller, the terminal device configured to display a graphical report the graphical report including a first profile curve illustrating data packet throughput values with respect to code violation data for the first profile and a second profile curve illustrating data packet throughput values with respect to code violation data for the second profile (Ishiai fig. 7, paragraphs 0073-0075). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the feature as taught by Ishiai in the network of Rosen. The motivation for using the feature as taught by Ishiai in the network of Rosen being that it provides user friendliness.

Regarding claim 24, although Rosen and Ishiai did not disclose the feature wherein the first profile curve intersects with the second profile curve. However, it is considered as an obvious matter of design choice. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to set any values for the

first and second profile curves. The motivation for using the obviousness is to provide a user friendliness system.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen (Pat No.: 6985444), in view of Sweitzer et al. (Pub No.: 2003/0189977).

For claim 7, Rosen did not disclose the feature wherein the first data line transmission speed is 1536 kbits per second, the second data line transmission speed is 768 kbits per second, and the third data line transmission speed is 384 kbits per second. Sweitzer et al. from the same or similar fields of endeavor teaches the feature wherein the first data line transmission speed is 1536 kbits per second, the second data line transmission speed is 768 kbits per second, and the third data line transmission speed is 384 kbits per second (Sweitzer et al. see paragraph 0040, lines 10-15, and Table 1). Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the feature as taught by Sweitzer et al. in the network of Rosen. The motivation for using the feature as taught by Sweitzer et al. in the network of Rosen, being that each receiving and transmission side displays a highest and lowest transmission rate.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen (Pat No.: 6985444), in view of Tzannes (Pat No.: 6498808).

For claim 8, Rosen did not disclose the feature wherein at least one of the first set of the plurality of profiles is an interleaved profile and another of the first set of the plurality of profiles is a non-interleaved profile. Tzannes from the same or similar fields of endeavor teaches the feature wherein at least one of the first set of the plurality of profiles is an interleaved profile and another of the first set of the plurality of profiles is a non-interleaved profile (Tzannes see column 21, lines 1-15). As shown one path is interleaved and the other is non-interleaved. Therefore we can make it obvious that the interleaved path is for the interleaved profile or data, and the non-interleaved path is for the non-interleaved profile or data. Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the feature as taught by Tzannes in the network of Rosen. The motivation for using the feature as taught by Tzannes in the network of Rosen, being that it provides two sets of data. One set of data is transmitted in the non-interleaved path, and other in the interleaved path. The non-interleaved path provides low latency.

9. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen (Pat No.: 6985444), in view of Cooper et al. (Pat No.: 6678245).

For claim 11, Rosen did not disclose the feature wherein the numbers of code violations are measured during a selected time period. Cooper et al. from the same or similar fields of endeavor teaches the feature wherein the numbers of code violations

are measured during a selected time period (Cooper et al. see column 4, lines 48-62). Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the feature as taught by Cooper et al. in the network of Rosen. The motivation for using the feature as taught by Cooper et al. in the network of Rosen being that it provides service selection based on the time requested by users.

For claim 12, Cooper et al. also disclosed the method of the selected time period is less than thirty minutes (see column 4, lines 48-62).

For claim 13, Cooper et al. also disclosed the method of the selected time period is fifteen minutes (see column 4, lines 48-62).

10. Claims 16, 17, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen (Pat No.: 6985444), in view of Lotter et al. (Pat No.: 7218645).

For claim 16, Rosen did not disclose the feature wherein the data packet throughput is a TCP/IP throughput. Lotter et al. from the same or similar fields of endeavor teaches the method of the data packet throughput is a TCP/IP throughput (see column 12, lines 9-15). Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the feature as taught by Lotter et al. in the network of Rosen. The motivation for using the feature as taught by Lotter et al. in the network of Rosen being that it provides guaranteed data with QoS since TCP/IP is a QoS transmission protocol.

Regarding claim 17, Lotter et al. disclosed the feature wherein the TCP/IP throughput is determined based on laboratory testing data (Lotter et al. see column 12, lines 9-15). As shown, the length of a packet can be interpreted as the testing data.

Regarding claim 21, Lotter et al. disclosed the feature wherein the data packet throughput value is a TCP/IP throughput value (Lotter et al. see column 12, lines 9-15).

11. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen (Pat No.: 6985444), in view of Aoki (Pub No.: 2003/0033262).

For claim 18, Rosen did not disclose the feature of switching a profile from a previously applied profile to the selected profile on the digital subscriber line. Aoki from the same or similar fields of endeavor teaches the feature switching a profile from a previously applied profile to the selected profile on the digital subscriber line (Aoki see paragraph 0025, lines 1-10). As shown, the system includes switching equipment 11 to switch users between a lower speed and a higher speed connection environment. Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the feature as taught by Aoki in the network of Rosen and Arnold et al. The motivation for using the feature as taught by Aoki in the network of Rosen and Arnold et al. being that it provides switching system to switch a user to different level of speed transmission.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAN YUEN whose telephone number is (571)270-1413. The examiner can normally be reached on Monday-Friday 10:00a.m-3:00p.m EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky O. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/
Supervisory Patent Examiner, Art Unit 2616

KY